

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for controllably releasing a power supply, comprising:

a host device that employs a computer program while powered by a battery; and;
a retaining assembly operatively coupled to the host unit for accepting the battery, the retaining assembly adapted to delay release of the battery from the host device until at least a shut down of the computer program; and

wherein the battery comprises a first latch mechanism and a second latch mechanism to delay release of the battery, wherein upon release of the first latch mechanism the battery slides out of the host device to a predetermined length, the predetermined length is such that the battery remains in contact with all power contacts, the first latch mechanism engages the second latch mechanism to prevent further removal of the battery, and upon release of the second latch mechanism, the second latch mechanism is disengaged, completely releasing the battery and disconnecting the battery from contact with all the power contacts.

2. (Previously Presented) The system of claim 1, the retaining assembly adapted to release the battery after the shut down of the computer program.

3. (Previously Presented) The system of claim 1, the retaining assembly adapted to release the battery without cold boot and a loss of data associated with the host unit.

4. (Original) The system of claim 1, the computer program is an application program for the host unit.

5. (Canceled)

6. (Original) The system of claim 1, the host device is at least one of a portable scanner and a computer.

7. (Original) The system of claim 1, the retaining assembly comprises at least one of an actuator and a solenoid.

8. (Original) The system of claim 1 further comprising an artificial intelligence for providing a stimulus to the retaining assembly.

9. (Original) The system of claim 1 further comprising an automatic shut down mechanism as to initiate a shut down of the host device.

10. (Previously Presented) The system of claim 1 further comprising an emergency release assembly for releasing the battery.

11. (Currently Amended) A battery release mechanism, comprising:
a battery receiving compartment being part of a host unit that runs a computer
program;

a first battery latch or catch structure operatively connected to the battery
receiving compartment and adapted to delay release of a battery until on or after a
shutdown of the computer program, wherein upon release of the first battery latch the
battery slides out of the host device to a predetermined length, the predetermined length
is such that the battery remains in contact with all power contacts; and

a second battery latch or catch structure that employs a notch mounted on a strip,
wherein the notch engages with an edge of the host unit to create a reactive force that acts
in a direction opposite to a sliding direction of the battery, by pressing a disc shaped area
on the strip, the strip moves downward and lowers the notch from its engaged position
allowing the battery to slide out from the battery receiving compartment, wherein upon
release of the second battery latch, the second battery latch is disengaged, completely
releasing the battery and disconnecting the battery from contact with all the power
contacts.

12. (Previously Presented) A battery release mechanism according to claim
11, the first catch or latch structure comprises a notch being engaged with a side of the
release mechanism.

13. (Previously Presented) A battery release mechanism according to claim
11, the first and second catch or latch mechanisms releases the battery in two stages.

14. (Currently Amended) A method for controllably releasing a power supply from a host device comprising:

providing a host unit employing a computer program while powered by a battery;
providing a retaining assembly operatively coupled to the host unit for accepting the battery, the retaining assembly adapted to delay release of the battery from the host until at least a shut down of the computer program; and

providing a first latch mechanism and a second latch mechanism to delay release of the battery, wherein upon release of the first latch mechanism the battery slides out of the host device to a predetermined length, the predetermined length is such that the battery remains in contact with all power contacts, the first latch mechanism engages the second latch mechanism to prevent further removal of the battery, and upon release of the second latch mechanism, the second latch mechanism is disengaged, completely releasing the battery and disconnecting the battery from contact with all the power contacts.

15. (Currently Amended) A method for controllably releasing a power supply from a host unit comprising:

providing a host device with a logic unit and a power supply retaining assembly;
initiating a powering off for the host device;
sending a stimulus from the logic unit to the power supply retaining assembly for initiating release of the battery;
delaying a release of the battery until at least a shut down of a computer program associated with the host device; and

providing a first latch mechanism and a second latch mechanism to delay release of the battery, wherein upon release of the first latch mechanism the battery slides out of the host device to a predetermined length, the predetermined length is such that the battery remains in contact with all power contacts, the first latch mechanism engages the second latch mechanism to prevent further removal of the battery, and upon release of the second latch mechanism, the second latch mechanism is disengaged, completely releasing the battery and disconnecting the battery from contact with all the power contacts.

16. (Original) A method according to claim 15, sending the stimulus prior to initiating the powering off for the host device.

17. (Original) A method according to claim 15 further comprising ejecting the power supply from the retaining assembly via an actuator.

18. (Original) A method according to claim 15 further comprising estimating via a logic unit a time for shut down of the computer program from powering off for the host device.

19. (Currently Amended) A system for controllably releasing a power supply, comprising:

a host device that employs a computer program while powered by a battery; means for retaining the battery being operatively coupled to the host unit for accepting the battery, the means adapted to delay release of the battery from the host device until at least a shut down of the computer program; and

wherein the battery comprises a first latch mechanism and a second latch mechanism to delay release of the battery, wherein upon release of the first latch mechanism the battery slides out of the host device to a predetermined length, the predetermined length is such that the battery remains in contact with all power contacts, the first latch mechanism engages the second latch mechanism to prevent further removal of the battery, and upon release of the second latch mechanism, the second latch mechanism is disengaged, completely releasing the battery and disconnecting the battery from contact with all the power contacts.

20. (Withdrawn) A battery cell for use in a battery release mechanism, comprising:

a first latch mechanism that employs a side latch feature that extends from the exterior of the battery cell, such that when the side latch feature is deflected the side latch feature engages a projection of the battery cell to prevent the battery cell from further removal;

a second latch mechanism that employs a strip having a wider width at one end and secured via a pin set over a trough, wherein the trough is formed on a surface of the battery cell, the strip is curved to form the projection of the battery cell and the pin set secures the strip;

wherein upon exerting a downward force, part of the strip moves in to the trough, lowering the projection and disengaging the projection from contacting the side latch feature and releasing the battery cell.

21. (Withdrawn) The battery cell of claim 20, further comprising positive and negative battery sockets engaged by resilient contact portions of positive and negative finger leads which project into a battery cell cavity.

22. (Withdrawn) The battery cell of claim 21, further comprising a safety switching mechanism that triggers the automatic powering off of a host unit, if the battery cell is removed without initially powering off the host unit.

23. (Withdrawn) The battery cell of claim 22, wherein the safety switching mechanism is triggered via contact of the projection on the battery cell body with a lever, during sliding out of the battery sockets from the finger leads of a terminal internal connector of the battery cell.

24. (Withdrawn) The battery cell of claim 20, wherein the battery cell is electrically connected to contacts on an interior of a battery compartment which mate with corresponding contacts on an electronic device to supply it with power.

25. (Withdrawn) The battery cell of claim 20, wherein the battery cell is part of an array of battery cells assembled together as part of a power unit in an electronic device.

26. (Withdrawn) The battery cell of claim 20, wherein the strip is fabricated from a conductive material.

27. (Withdrawn) The battery cell of claim 20, wherein the battery cell is removably mounted to an electronic device and a latch mechanism secures the battery cell to a host unit.

28. (Withdrawn) A battery cell contained within a housing for use in a battery release mechanism, comprising:

a first catch and latch mechanism that employs a pair of buttons extending from the exterior of the battery housing, the buttons includes a flex spring sheet mechanism attached to the interior of the battery housing, the spring sheet deflects when the buttons are displaced such that the buttons engage a projection of the battery cell, wherein upon inward squeezing of the buttons, the first latch and catch mechanism is released allowing the battery to slide out of the host device to a predetermined length;

a second catch and latch mechanism that employs a notch mounted on a strip, wherein the notch engages with an edge of the host device to create a reactive force that acts in a direction opposite to a sliding direction of the battery cell, by pressing a disc shaped area on the strip, the strip moves downward and lowers the notch from its engaged position allowing sliding out of the battery cell from the housing;

wherein upon exerting a downward force, part of the strip moves in to the trough, lowering the projection and disengaging the projection from contacting the side latch feature and releasing the battery cell.

29. (Withdrawn) The battery cell of claim 28, wherein the buttons hinge on pins on interior ends that contact the spring sheet mechanism.

30. (Withdrawn) The battery cell of claim 28, wherein the buttons have cams rotating on a shaft at ends to deflect the flex spring sheet.

31. (Withdrawn) The battery cell of claim 28, wherein the buttons are fabricated of thermoset plastic.

32. (Withdrawn) The battery cell of claim 28, wherein when the battery cell is slid out of the host device to a predetermined length, the battery cell remains electrically connected to the power from the host unit.

33. (Withdrawn) A battery cell contained within a battery compartment for use in a battery release mechanism, comprising:

a latch assembly that includes a latching member and a latch cavity formed on a side wall of the battery compartment, wherein the latching member moves between an extended position and a retracted position;

a lid hinged to the battery compartment which permits access to the battery compartment;

wherein in the extended position, the latching member moves parallel to the lid and through a retaining member and locks into the cavity such that the lid is locked, denying access to the battery compartment, and wherein in the retracted position, the latching member moves out of the cavity and retaining member, allowing the battery compartment to be opened and the battery cell removed.

34. (Withdrawn) The battery cell of claim 33, further comprising an actuator operatively connected to the latch assembly of the battery compartment, the actuator employs the latching member to extend, locking the lid of the battery compartment and denying access to the battery cell.

35. (Withdrawn) The battery cell of claim 34, wherein the actuator employs the latching member to retract, allowing the lid of the battery compartment to be readily opened and the battery cell removed.

36. (Withdrawn) The battery cell of claim 35, further comprising an electromagnetic assembly employed in combination with the actuator to gradually release the battery cell from the battery compartment.